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(54) **Method for discriminating types of nucleic acid bases.**

(57) This invention provides a method for discriminating four kinds of nucleic acid bases of DNA at high speed by utilizing chromophores intrinsic to DNA. The method comprises the steps of adding the sample to a polar glassy solvent; reducing a temperature the glassy solution; adding a (n,π^*) quencher as a fluorescence intensifying reagent to the solution; irradiating an excitation light of UV laser beams thereto; measuring lifetimes of fluorescence from the sample; and discriminating the nucleic acid bases of DNA.

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EUROPEAN SEARCH REPORT

Application Number
EP 92 31 0007

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
D,Y	GUÉRON, M. ET AL. 'in: Basic Princples in Nucleic Acid Chemistry, vol 1, "Excited States of Nucleic Acids," pages 311-398' 1974 , ACADEMIC PRESS , NEW YORK * page 322 - page 328 *	1-5	C12Q1/68 G01N33/58
D,Y	WO-A-89 03432 (UNITED STATES DEPARTMENT OF ENERGY) * page 8, line 5 - line 12 *	1-5	
A	CHEMICAL PHYSICAL LETTS., vol.174, no.6, 23 November 1990, AMSTERDAM, NL pages 553 - 557 SHERA, E. ET AL 'detection of single fluorescent molecules' * the whole document *	1,5	
A	PHOTOCHEMISTRY AND PHOTOBIOLOGY, vol.7, 1968, GB pages 597 - 612 EISENGER, J. 'The Excited States of Nucleic Acid Chemistry' * the whole document *	1,5	TECHNICAL FIELDS SEARCHED (Int.Cl.5) C12Q
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	26 January 1995	Osborne, H

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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P,A	CHEMICAL ABSTRACTS, vol. 115, no. 23, 9 December 1991, Columbus, Ohio, US; abstract no. 248890, SOPER, S. ET AL 'Rapid sequencing of DNA based on single molecule detection' page 173 ;column LEFT ; * abstract * & PROC. SPIE-INT. SOC. OPT ENG., vol.1435, 1991 pages 168 - 178	1-5	

TECHNICAL FIELDS SEARCHED (Int.Cl.5)

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